



FIELD TRIP

Cultural Contributions

Theme

In order to learn important lessons from ancient civilizations, we must preserve the artifacts they left behind.

Utah State Core Curriculum Topic

Social Studies Standard One: Students demonstrate the sequence of change in Utah over time.

Objective One: Recognize the sequence of change in Utah over time.

Objective Two: Trace the development of the state of Utah.

Social Studies Standard Four: Students participate in activities that promote cultural understanding and good citizenship.

Objective One: Demonstrate cultural understanding.

Objective Two: Demonstrate basic citizenship skills.

Field Trip Location

A southeastern Utah rock art site. Two ideal locations are the petroglyph panel behind Wolfe Ranch near the Delicate Arch trailhead, Arches National Park, and Newspaper Rock Recreation Site on Highway 211, east of the Needles District of Canyonlands National Park.

Time

All lessons are 30 minutes

Background

This program introduces students to the field of archeology and its role in preserving our human past. Students experiment with making cordage, rock art, and pottery. Students learn how to enjoy archeological sites without damaging them and are introduced to some of the threats to preserving past cultures, such as vandalism of archeological living sites and rock art.

Even though ancient peoples in this area grew corn, beans, and squash, and the cultures hunted animals to varying degrees, they also used wild plants for food and other needs.

Cordage, one example of a household item made from the area's wild plants, consists of several strands of fiber twisted together into a string or rope. Prehistorically, cordage was made

from a variety of materials including the long plant stalk fibers of milkweed and dogbane, yucca leaf fibers, and juniper and sagebrush bark. Ancient people also used human hair and animal sinew. The different sizes of cordage that were made probably depended on both the plant fiber source and the intended purpose of the finished object. Some archeologists make replicas of cordage artifacts in order to learn more about how they were made and how much time was required for their production. A ranger at Arches National Park spent two months making a pair of cordage sandals similar to those found in the area. Most cordage artifacts have been found in dry cave sites in the western United States. Although many are only small pieces of larger items, a net measuring 140 feet by 4 feet was found at Hogup Cave

in northwestern Utah (Smith, Moe, Letts, & Peterson 1992, 133).

Archeologists Winston Hurst and Joe Pachak (1989, 1) state that “in modern America, the most common kind of ‘rock’ art is that which is painted on the concrete and brick walls of the artificial canyons of our cities and on bridge abutments and rock faces along our highways. In modern American culture, as in all cultures, it expresses the values, attitudes, beliefs, and desires of the society.” Others believe art in modern society often reflects the fringe or cutting edge of society, whereas ancient rock art usually represents more central societal values and beliefs. Because of this, some archeologists now prefer the term *rock images* to *rock art*.

Rock images can be found around the world, yet there are few places where it is as widespread or varied as in southern Utah. Although it is possible to identify some of the images, such as bighorn sheep and sandal prints, the context or symbolic nature is more difficult to determine. While modern tribal members can shed light on this discussion, their insights also confirm that one image may have different meanings in different contexts and cultures.

Because of the durability of fired clay pottery, potsherds are one of the most common types of artifacts. Pottery styles are distinctive to particular cultures and changed through time, so pottery is helpful in determining both the age of a site and which group of people lived there. Pottery artifacts also give insights into how ancient people cooked and stored food and seeds.

The 1979 Archeological Resources Protection Act prohibits disturbance of any archeological sites more than 100 years old on any federal lands. The act sets penalties for those convicted of violations. A first offender may be fined up to \$250,000 and could spend up to two years in jail. A second offender may be fined \$250,000 and could spend five years in jail. A similar 1990 state law protects state lands. The state law allows digging on private land with permission of a landowner. Digging on private land without permission may bring penalties similar to those on federal land. Disturbing a human burial is a felony offense.

Coyote gourd grows next to a ruin in the Needles District of Canyonlands National Park



Pieces of the Past

Objectives

Students will be able to:

- a. Name at least one reason why it is important to leave artifacts where they are found.
- b. Describe ways of enjoying archeological sites without disturbing them.

Materials

shoestring; poster labeled petroglyph with drawings or photographs of local petroglyphs; poster labeled pictograph with drawings or photographs of local pictographs; pottery sherd; poster labeled pottery with drawings or photographs of ancient pottery; *Sherdy: The Storyteller* video (Southern Utah University, 1993).

Sherdy.

3) Show the *Sherdy* video. After the video presentation, have the students list ways that we can enjoy archeological sites without damaging or disturbing them.

4) Review the items that students need to bring to school on the day of their field trip.

PROCEDURE

1) Write *archeology* on the board, and discuss its meaning. A simple definition of *archeology* is the study of people from the past. Ask students to close their eyes and think of an object, important to them, that reminds them of their past (Smith, Moe, Letts, & Peterson, 1992, 9-10). Name some examples, such as a baby blanket or a toy. Have volunteers describe their special object to the rest of the class. Ask if students think a stranger might be able to learn something about their lives by examining their objects. Would the stranger learn more by examining several objects from each student's past? Relate the students' objects to archeological artifacts, and introduce the importance of saving these artifacts or "pieces of the past." Explain that on the upcoming field trip students will be exploring pieces of the past from the ancient people who lived in this area.

2) Describe the three field trip stations in the following manner. For the cordage station, hide a shoestring in one hand, stand in front of the class, and tell one thing about the mystery object. Instruct the students to take turns, each asking one yes-no question about the object and taking one guess at its identity, until someone correctly names the object. Explain that on the field trip, students will be learning how the ancient people of this area made cordage (twine or string) and how they used it. Students will have a chance to make some cordage themselves. For the rock art station, follow a similar procedure with a petroglyph replica. Show the students the *Petroglyph* and *Pictograph* posters, and discuss. For the pottery station, ask the students to guess what is in your hand (a potsherd). Present the *Pottery* poster. Discuss the poster, and use it as a lead-in to the video

STATION #1

Making Cordage

(Smith, Moe, Letts, & Peterson, 1992, 132-135)

Objectives

Students will be able to:

- a. State one way prehistoric people used cordage in everyday life.
- b. Perform the skill of making cordage.

Materials

Twine, cut into 12 to 15 inch lengths; cordage replica, such as yucca sandals and/or picture of cordage artifacts; picture of a yucca plant; 12 to 15 inch lengths of natural materials for making cordage, including milkweed or dogbane stalks; yucca leaves, sagebrush bark and/or juniper bark (natural fibers are easiest to use when wet); *Treading in the past: Sandals of the Anasazi* (Kankainen, 1995).

PROCEDURE

1) Ask students where they purchased their sneakers and how long they think it took to make them. Show students the cordage replica sandals and pictures of ancient sandals. Discuss how long it took to make the replicas. Discuss with students how making their own shoes in this way would change their lives.

2) Distribute a piece of twine to each student. Have students examine the twine, and see if they can determine how it was made. Define *fiber* as a slender, threadlike strand or string. Describe *cordage*, on the other hand, as consisting of several strands of fiber twisted together into a string or rope. Students may use

twine for their first attempts at making cordage and advance to natural plant fibers when they are ready. Explain and demonstrate the steps to make cordage. If using natural fibers, remove debris by rubbing the plant fiber between the palms of your hands. Next, whether using twine or plants, separate two long strands. Hold one end of Strand A and one end of Strand B together, side-by-side, in your left hand between your forefinger and thumb (vice-versa if left-handed). Pick up Strand A between your right forefinger and thumb, and twirl the strand away from your body (clockwise). Take the twisted Strand A, and bring it toward your body, over and then under Strand B. Hold Strands A and B between your left forefinger and thumb where you crossed A over B. Repeat the twirling and crossing sequence. Pick up Strand B, twirl it away from your body, and cross it over and under Strand A. Continue these steps.

3) Explain that the Ancestral Puebloans used the fibers of the yucca plant to make cordage, sandals, and baskets. Show a picture of the yucca plant, and pass around one of the leaves. Discuss how the yucca leaf is prepared to make into cordage. Let the students try to make cordage with yucca fiber.

4) After all the students have been successful in making cordage, discuss their impressions of daily life of prehistoric people. In what ways might the daily life of the Ancient Puebloans be similar to the students' daily lives? In what ways was it different?

Making cordage



STATION #2

Symbols on Rock

(adapted from Smith, Moe, Letts, & Peterson, 1992, 151-153)

Objectives

Students will be able to:

- Describe the difference between petroglyphs and pictographs.
- Name one reason for preserving rock art panels.

Materials

Copies of *rock art symbols* sheet; *Petroglyphs* and *Pictographs* posters (See Pre-Trip Activity); scratchboards (available from Salix Corporation 801-531-8600), or paper, pencils and clipboards.

PROCEDURE

1) Gather students around the rock art panel. Give students guidelines for observing the rock art without touching. Give the students time to observe the panel and talk with each other about the symbols. Discuss some possible meanings of the symbols.

2) Have students imagine that they lived in this area one thousand years ago. Ask students if they would live here permanently. Is there enough water nearby to survive? What would they use for shelter? How would they hunt? What would they hunt? Ask students to think about why they might create rock art if they lived here.

3) Using the *rock art symbols* sheet, posters, and your own drawings, show students examples of international symbols and rock art symbols.

Explain that although we don't know what the prehistoric symbols mean, a few seem obvious and we can get some pretty good ideas about some of the others by speaking with modern tribes or studying archeology. Explain to the students that they will be using symbols to create some of their own "rock art." With the students, brainstorm examples of symbols they would recognize. Give students time to think of symbols that mean something to them in their own lives. Give each student a scratchboard or paper, pencil, and clipboard, so they may sketch or draw their own symbols. If using scratchboards, instruct students in their use. Remind the students that they cannot put letters on their artwork. Instruct them not to tell others what they are drawing.

4) As students finish their rock art creations, have them present to the group. Ask the other students to try and guess the message in each rock art display. Ask the kids to think about our guesses of the actual rock art. They could be just as wrong as our guesses of our friend's rock art. Deciphering real rock art, however, is even more difficult because no one is still around to clear up our misconceptions.

5) Discuss how students would feel if someone came along and threw rocks at their rock art, wrote their name on it, or defaced it in any other way. Relate their feelings to how archeologists, Native Americans, and others feel when they see a site that has been vandalized. Explain that it is against the law to deface ancient rock art.

Part of the Newspaper Rock panel



STATION #3

Pottery

Objectives

Students will be able to:

- a. Identify at least one reason that artifacts are important.
- b. Perform the skill of making a coil pot or figure.

Materials

Potsherds borrowed from a museum collection;
Pottery poster (See Pre-Trip Activity); clay; tarp.

PROCEDURE

1) Hand out an ancient potsherd to each of the students. Have the students pass them around so that everyone has a chance to see and touch all the potsherds. Then place the potsherds in the middle of the circle. Discuss how most of the potsherds in the pile were collected by uneducated visitors and, therefore, tell us nothing new about the past. Have a student point to the potsherd with numbers on it. Discuss how the number corresponds to archeological data and can tell us many things about it and other potsherds. Give students information about potsherds, and explain to them that studying pottery has taught us about the Ancestral Puebloan peoples. Have students point out the appropriate potsherds as you talk. Use the *Pottery* poster in coordination to the potsherds to describe relevant designs, shapes, and uses.

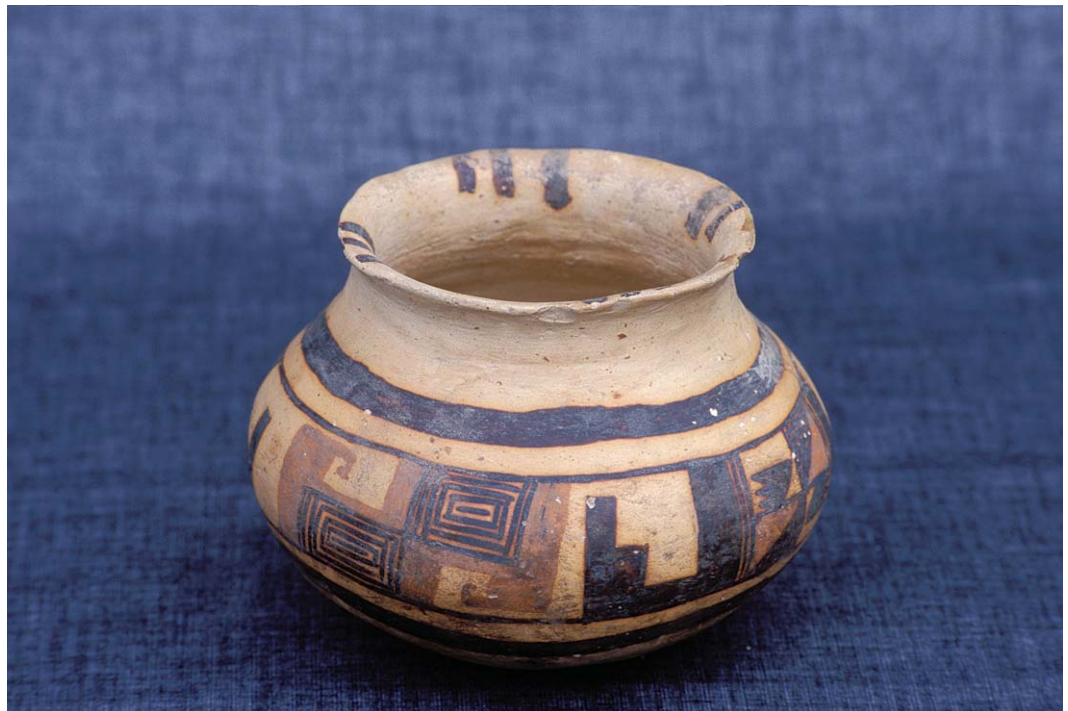
2) Demonstrate how to make coil pottery and how to brandish the coils using fingers

or smooth stones. Instruct students to make miniature pots and figures, as Ancient Puebloan and Fremont children commonly did. Distribute clay. Have students sit on the tarp to work, and help the students in making their pottery.

3) While students are working, discuss the process for making pottery. Include all of the main steps: finding and collecting the clay, forming the pottery, and firing the pottery.

4) Have students show their pots and describe different ways they might use them if they lived in this area one thousand years ago.

Pottery found in Canyonlands
National Park



All Mixed Up

(adapted from Smith, Moe, Letts, & Peterson 1992, 22-23.)

Objectives

Students will be able to:

- Define *chronology* or describe what a time line represents.
- State at least two reasons that artifacts shouldn't be removed from archeological sites.

Materials

Index cards or paper squares (four per student plus a few extras).

PROCEDURE

1) Review the definition of *archeology* and the role of an *archaeologist*. Introduce the concept of a *timeline* or *chronology*. Draw on the board, and discuss, a cross-section of two or three soil layers containing artifacts (including modern "artifacts" in the top layer). Draw a historical linear timeline and/or a timeline of your own or someone else's life as another way to illustrate chronology. Show the importance of sequence by switching two events, or removing an event, and seeing the resulting confusion. Explain that chronological data is important in understanding how past peoples lived and that digging up archeological sites destroys this chronology.

2) Pass out four index cards to each student, and instruct students to write an important event in their lives on each card (e.g., "My sister was born," "My family moved," "I learned to ski," "I got my dog, Max"). Have students arrange their cards in chronological order, most recent on top, in the same arrangement as artifacts in layers at archeological sites.

3) Have each student mix up her set of cards and exchange sets with a partner. Instruct students to make a best guess at the order of their partners' tags. Partners should check the cards and explain any mistakes in the chronology. Then, have each student randomly remove one card from his own set and exchange cards with a different partner. After ordering and checking, ask if partners had a more difficult time guessing the chronology with one event missing. Explain that digging through an archeological site is like mixing up the cards and taking artifacts is like removing events. Briefly describe the careful digging and recording of an archeological dig.

4) Have students imagine that they cannot

remember significant events in their lives, and discuss the following questions: How would the history of the student's life be changed? How does digging in an archeological site cause the loss of information about the past? In what ways is a hole dug by vandals in the archeological site similar to a loss of significant events in the student's life? What might the students say to an artifact collector about the importance of leaving sites undisturbed?

EXTENSIONS

Ask students to complete a timeline of significant events in their lives and describe its importance to them. Then, have them relate the importance to an archeological site.

Have students create informative posters on why people should not alter archeological sites.

References and Resources

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